Municipal Drinking Water Licensing Program Bulletin

Ministry of the Environment

Safe Drinking Water Branch

A bulletin for licensed municipal drinking water system owners and operators

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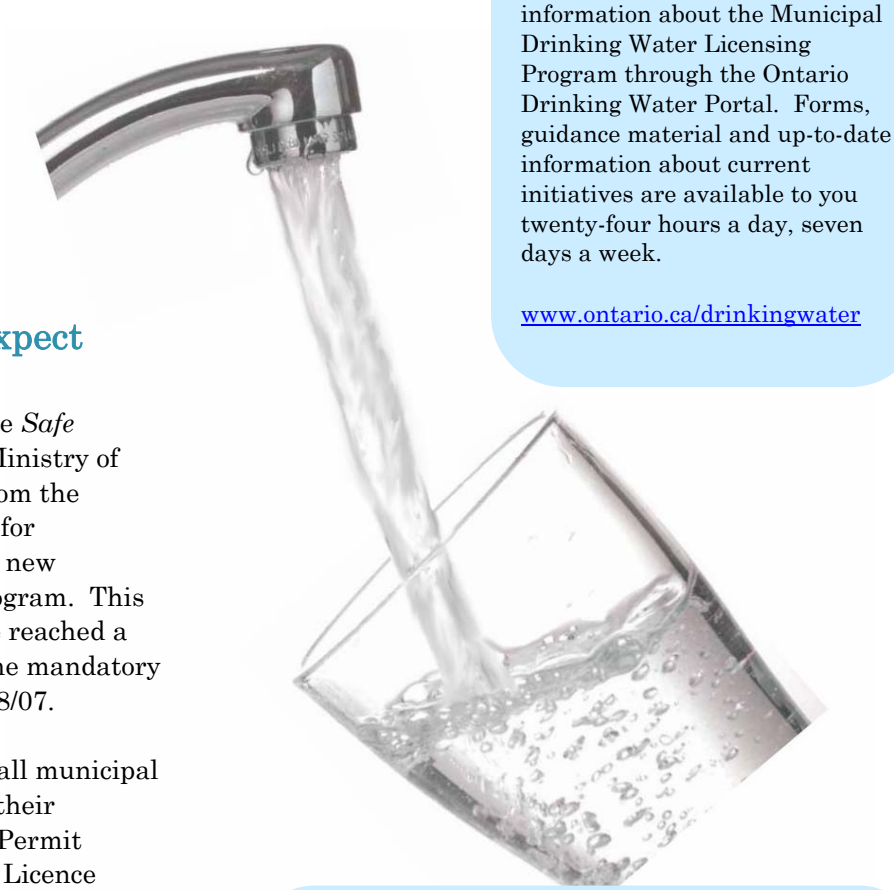
The purpose of this bulletin is to provide program updates to municipal drinking water system owners and operators. If there is a topic you would like to see covered in a future edition, or if you have questions about any of the topics covered in this issue, please contact:

Approvals & Licensing
Safe Drinking Water Branch
Ministry of the Environment
2 St. Clair Ave. W, Floor 19
Toronto, ON M4V 1L5
mdwlp@ontario.ca

Did you know?

You can access detailed information about the Municipal Drinking Water Licensing Program through the Ontario Drinking Water Portal. Forms, guidance material and up-to-date information about current initiatives are available to you twenty-four hours a day, seven days a week.

www.ontario.ca/drinkingwater



Moving Forward: What to Expect

With the proclamation of section 33 of the *Safe Drinking Water Act*, 2002 (SDWA), the Ministry of the Environment began the transition from the Certificate of Approval (C of A) Program for municipal drinking water systems to the new Municipal Drinking Water Licensing Program. This transition started in January 2009 as we reached a milestone for the program - the first of the mandatory submission dates contained in O. Reg 188/07.

As we enter the third year of transition, all municipal drinking water systems have submitted their application for a Drinking Water Works Permit (DWWP) and Municipal Drinking Water Licence (Licence). All facilities are expected to receive their first DWWP and Licence by September 2011. As our transition period draws to a close, we are looking to the future of the Municipal Drinking Water Licensing Program. We are currently reviewing program metrics and feedback to identify areas that can be improved. We will also be asking for your experiences with the program – if you have any success stories or suggestions, you are encouraged to share them with us by sending them to mdwlp@ontario.ca.

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Ontario

Modifying your Drinking Water System

The DWWP offers some flexibility in terms of adding, modifying, extending or replacing parts of your drinking water system without obtaining further authorizations or approvals from the ministry.

As you begin to exercise this flexibility, be aware of any conditions in your DWWP that may limit the nature or extent of works or that may establish other criteria that should be met before proceeding.

Generally, modifications will fall into one of five categories:

1. An alteration of the system that is pre-authorized in your DWWP and **does not** require an alteration of description of the drinking water system described in Schedule A of your DWWP.

2. An alteration of the system that is pre-authorized in your DWWP and **requires you to notify the Director** of an alteration of the description of the drinking water system described in Schedule A of your DWWP.

3. An alteration that does not meet the conditions in your DWWP and requires an application to amend the DWWP.

4. Repair and maintenance.

5. Alterations which are exempt from the approval requirements of Part V of the SDWA.

View of Lake Simcoe from Sibbald Point Provincial Park

While your DWWP grants you some flexibility, it does not remove the necessity to maintain a record of **all** modifications made to your system, with the exception of repair and maintenance, and those alterations which are exempt. This record of modifications should be prepared in advance of any work relating to the modification – and should be readily available for an inspector to review. Forms for recording modifications, for submitting a notification to the director, and for submitting an application to amend the DWWP are all available through the Drinking Water Portal at www.ontario.ca/drinkingwater.

Standard of Care

The standard of care for municipal drinking water systems (Section 19 of the SDWA) will come into force on January 1, 2013. The Municipal Drinking Water Licensing Program has been designed to assist you in meeting the statutory standard of care.

With the issuance of the first DWWP and Licence, your drinking water system will have:

- an accredited operating authority for the drinking water system;
- developed and implemented a quality management system;
- an operational plan with documented policies and procedures, and a commitment to continually review and improve quality management practices.

For those that are in a position of oversight of municipal drinking water systems, the statutory standard of care will apply to your oversight activities. Specifically, this applies to every person who oversees the accredited operating authority for the system, and every person who exercises decision making authority over the system. For systems owned by a municipality, this could include members of council or municipal employees. For systems owned by a corporation other than a municipality this includes every officer and director of the corporation.

It is not expected that everyone involved in the oversight of a drinking water system will be an expert in the areas of drinking water treatment and distribution. However, if the standard of care applies, you should inform yourself and be diligent in your oversight responsibilities. Part of this diligence may include engaging persons who have the particular expertise in the various aspects of owning and operating drinking water systems. Section 19 of the SDWA allows you to rely in good faith on a report of an engineer, lawyer, accountant or other person whose professional qualifications lend credibility to the report.

Changing Operating Authorities

The SDWA requires that an accredited Operating Authority is in charge of your municipal drinking water system at all times. If you've already received your first Licence and DWWP, then you've had some experience with the accreditation process.

A Winter View of Niagara Falls

The name of your Operating Authority is included in Schedule A of your Licence. If you plan to change your Operating Authority, there are several important steps that you should take:

1) Your new Operating Authority should obtain accreditation. To ensure a smooth transition, it is important to plan and prepare for your change of Operating Authority. In many situations, the 'Limited Scope – Transitional' accreditation option will assist in your transition process. For additional information about the accreditation process, please refer to the "Program Handbook for the Accreditation of Operating Authorities – Municipal Drinking-Water Systems", available from the Canadian General Standards Board (CGSB) at http://www.tpsgc-pwgsc.gc.ca/ongc.

2) You should also apply to the Ministry of the Environment for an amendment to your Licence. There is no fee associated with this amendment. For additional information about the application process, please refer to the "Guide for Applying for DWWP Amendments, Licence Amendments, Licence Renews & New System Applications – Municipal Residential Drinking Water Systems", available from the Ministry of the Environment at www.ontario.ca/drinkingwater.

If you haven't received your first Licence and DWWP, your current Operating Authority may not have completed the accreditation process. You should notify your account representative at the CGSB **immediately** if you plan to change Operating Authorities before the accreditation process is complete.

For additional information, please contact your account representative at the CGSB or contact the CGSB Accreditation Program team at OE-OA@tpsgc-pwgsc.gc.ca.

Agreement with Accredited Operating Authority

As the owner of a municipal drinking water system, you may contract an operating authority to be responsible for the operation, management, maintenance and alteration of your system. Section 14 of the SDWA outlines the specific information that should be contained in your agreement with this operating authority. The contents of this agreement should include:

- A description of the system or the parts of the system for which the operating authority is responsible.
- A description of the responsibilities of the owner in an emergency situation.
- A description of the responsibilities of the owner and the operating authority to ensure compliance with the SDWA and to respond to any deficiency that is determined to exist in the drinking water system or the operational plan for the drinking water system.
- A description of the responsibilities of the owner and the operating authority to ensure that the operational plans for the system are reviewed and revised and that both parties are informed of all revisions.

Section 14 of the SDWA will come into force on January 1, 2013; the same date as the Standard of Care for municipal drinking water systems (Section 19 of the SDWA). While you may delegate certain duties to your operating authority, you will still need to apply the Statutory Standard of Care to your oversight activities. As the owner of the drinking water system, it will be your responsibility to ensure that the operating authority is carrying out its responsibilities under the SDWA. In cases where it is not, you must take all reasonable steps to ensure that the operation of the system complies with the requirements of the SDWA.

Operating Authority Accreditation – How to Respond to Audit Findings

Obtaining third-party accreditation of your Operating Authority demonstrates that the Quality Management System (QMS) for your drinking water system meets the requirements of the Drinking Water Quality Management Standard (DWQMS).

The purpose of your QMS is to establish a framework for continual improvement. It is not only focused on the quality of the drinking water you produce, but also on the processes you put in place to ensure this quality. The DWQMS establishes the minimum requirements for your QMS.

On-site and system audits are essential tools for measuring the effectiveness of your QMS. Audit findings will indicate areas where your QMS meets the requirements of the DWQMS (conformance) or doesn't meet the requirements of the DWQMS (non-conformance). Often, opportunities for continual improvement of your QMS will also be identified.

A non-conformance indicates that your QMS needs to be improved to meet an element (or elements) of the DWQMS, and the third-party accreditation body will outline the specific details of the non-conformance in a Corrective Action Request. You should prepare a Corrective Action Response to document the corrective actions that have been taken to address the non-conformance, and submit it to the third-party accreditation body within the timeframe specified on the Corrective Action Request.

Did you know?

If you've gone through the auditing process and are having difficulty understanding why you've been issued a non-conformance, you should contact your account representative at the CGSB for clarification. As a third-party accreditation body, CGSB can't tell you how to fix the non-conformance, but they may be able to provide you with more information on the nature of your non-conformance and the element in the DWQMS that it relates to.

The actions you take to address a non-conformance should be intended to not only fix the problem, but also to modify your QMS so that the process which caused the non-conformance is reviewed to prevent the problem from occurring again. When documenting your corrective actions, you should provide evidence that the problem was recognized, corrected, and that proper controls were installed to make sure that it does not happen again. The following four items should be addressed when preparing your Corrective Action Response to the audit findings.

1) <u>Immediate short term action:</u>

Immediate actions are necessary to contain the problem and prevent it from impacting an internal or external customer. It is important to clearly identify what the problem is, where/when the problem occurred, how large the problem is and what areas / people / processes the problem impacts. Sometimes termed remedial actions, these actions will typically deal with the immediate issue at hand.

Example 1:
If a gauge used for measurement has not been calibrated, the remedial action would be to calibrate the gauge.

Example 2:
If it has been identified that a staff member has an out-of-date training record, the remedial actions would be to schedule training for the staff member, to grant the staff member time to complete the scheduled training, and to update the training record for the staff member.

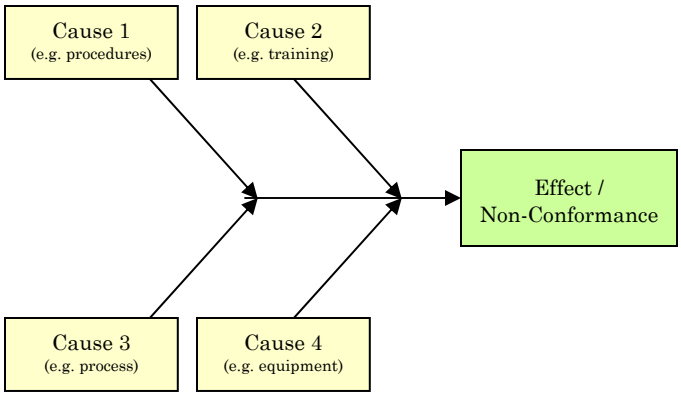
2) Root Cause:

A finding of non-conformance is often the symptom of an underlying problem. In answering the question "why did this go wrong?", the root cause of the problem may be found and addressed. Looking deeper into your QMS and implementing effective correction action(s) will reduce the potential for future non-conformances.

As an analytical tool, Root Cause Analysis is an essential way to perform a comprehensive, system-wide review of significant problems, as well as the events and factors leading to them. Beyond simply re-stating the non-conformance finding, it is important that you fully assess your non-conformance and clearly define the root cause(s).

Example 1:
If a gauge used for measurement has not been calibrated, an issue may be identified with the procedures in place for ensuring that installed equipment is properly tested and calibrated before being put into service.

Example 2:
If it has been identified that a staff member has an out-of-date training record, an issue may be identified in how training information is tracked or maintained.



Example of a 'Fishbone' Diagram – a Tool Used in Root Cause Analysis

3) Corrective Action

Once you've identified the cause of the problem, a corrective action (or actions) should be identified to prevent future occurrences of the same problem. The action(s) should be tested to ensure that the desired result is being maintained and that there are no undesirable side effects. Your goal should be to make your processes 'mistake proof". Where a corrective action cannot be immediately implemented, it is important that you establish an action plan and that you set realistic target dates for the action(s) to be completed.

Example 1:
If a gauge used for measurement has not been calibrated, the procedures, training or instruction manuals may need to be updated to ensure that testing and calibration is undertaken as part of installation or maintenance of all gauges.

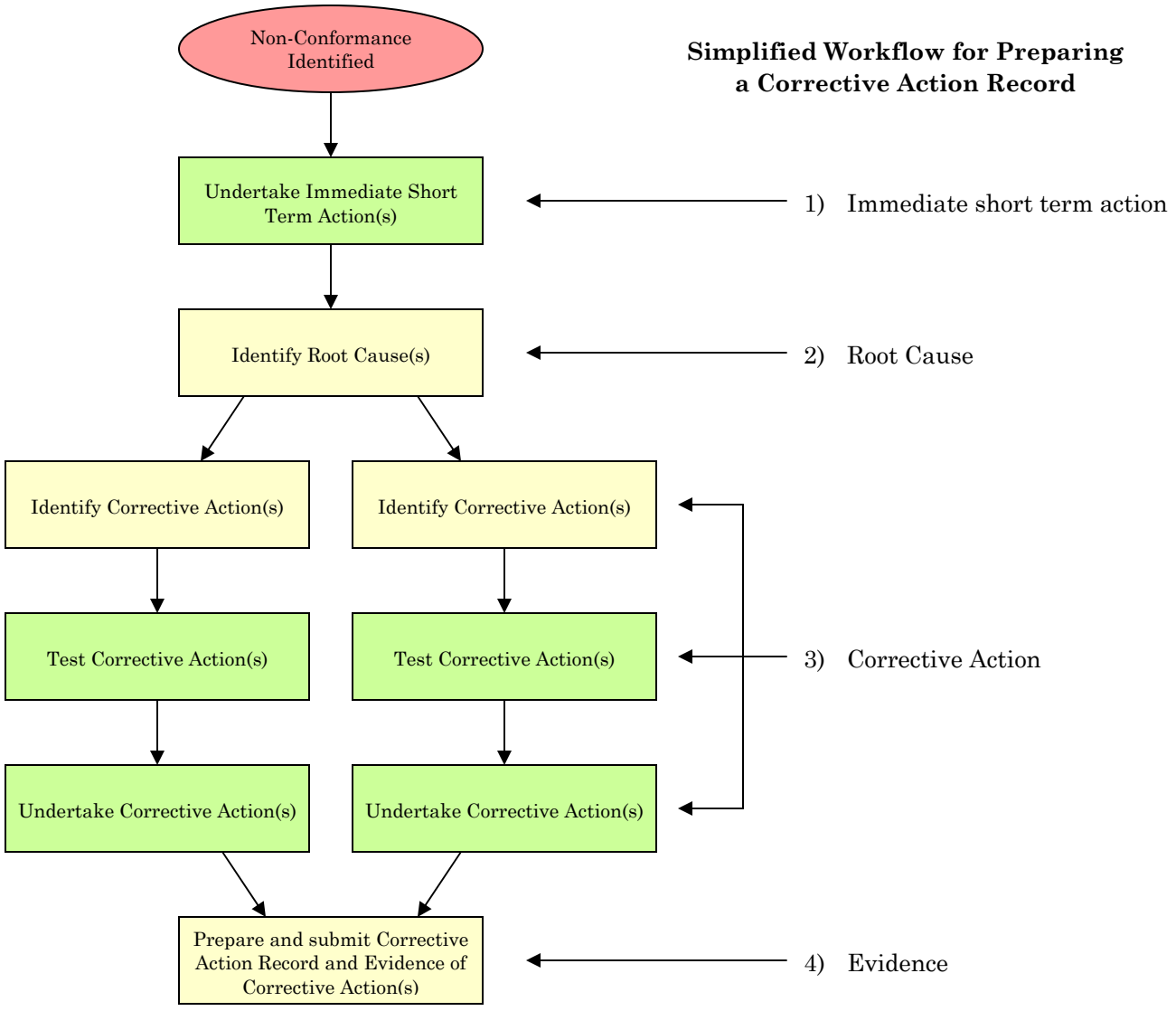
Example 2:
If it has been identified that a staff member has an out-of-date training record, a new process for keeping track of training information may need to be developed to ensure that training records are kept up-to-date.

4) Evidence

It is important that you demonstrate the actions that have been taken to address the non-conformance. Evidence can take many forms, but will include documentation prepared or actions undertaken to address the non-conformance (such updated policies, procedures, processes, etc.). A copy of any evidence should be included in the Corrective Action Response that you provide to the third party accreditation body.

Example 1:
If a gauge used for measurement has not been calibrated, a copy of the updated procedures manual may be included, along with an outline of the changes made and the rationale behind the changes.

Example 2:
If it has been identified that a staff member has an out-of-date training record, a copy of the updated training record may be included, along with an outline of the process(es) established to keep the training records up-to-date.


Non-Conformance Identified
Simplified Workflow for Preparing a Corrective Action Record
Undertake Immediate Short Term Action(s)
1) Immediate short term action
Identify Root Cause(s)
2) Root Cause
Identify Corrective Action(s)
Identify Corrective Action(s)
Test Corrective Action(s)
Test Corrective Action(s)
3) Corrective Action
Undertake Corrective Action(s)
Undertake Corrective Action(s)
Prepare and submit Corrective Action Record and Evidence of Corrective Action(s)
4) Evidence